



# HEXAGON TRANSPORTATION CONSULTANTS, INC.

AUG 10 2005

August 8, 2005

Mr. Jack Withaus  
City of Sunnyvale  
456 East West Olive Avenue  
Sunnyvale, California 34088-3707

Re: *Before and After Study of Wolfe Road Bike Treatments*

Dear Mr. Withaus:

Hexagon Transportation Consultants, Inc. has completed this analysis of the bike treatments on Wolfe Road between Old San Francisco Road and Maria Lane. As you are aware, the bike treatments were constructed in late July of 2004 and consisted of pavement legends and overhead signs. The intent of the treatments was to communicate to drivers that the curb lane on Wolfe Road is to be shared between bikes and motor vehicles.

### Scope of Study

The several metrics were measured before (early July 2004) and after (late July 2005) the bike treatments were constructed on the study segment. These included:

1. **Vehicle speeds.** Two-day speed surveys were conducted mid-block between Gary Avenue and Iris Avenue. This metric was intended to measure changes in motor vehicle speeds as a result of slower bicycle traffic in the curb lane.
2. **Traffic Volume.** Average daily traffic counts were conducted on Tuesday through Thursday. The percentage of traffic in each travel lane also was noted. This metric was intended to determine whether vehicles would adjust their travel routes and/or lane choice.
3. **Vehicle Lane Changes.** The number of vehicle lane changes were counted between Gary Avenue and Iris Avenue from 12:00 PM to 2:00 PM and from 4:00 PM to 8:00 PM on a typical weekday. The intent was to determine whether more motor vehicles would change lanes in response to slower bike traffic in the curb lane.
4. **Number of bike trips.** The number of bike trips was counted on the study segment between 12:00 PM and 2:00 PM and between 4:00 PM and 8:00 PM on a typical weekday. The intent was to determine whether more bikes would use Wolfe Road.
5. **Position of bikes in lanes.** The position of each bike trip was noted on the study segment between 12:00 PM and 2:00 PM and between 4:00 PM and 8:00 PM on a typical weekday. Bike trips were categorized as sidewalk, shoulder, right-third of curb lane, and middle of curb lane. The intent was to determine whether bikers would adjust their behavior as a result of the treatments.

6. **Accident Data.** Accident data were reviewed for the period August 2003 through March 2004 (before the treatments) and compared to data from August 2004 through March 2005 (after the surveys). At the time of this analysis, these represent the most recent data available. The intent was to determine whether the accident experience of the study segment would change as a result of the treatments.
7. **Driver Surveys.** To gauge driver opinion, 300 survey cards were distributed to motor vehicles on Wolfe Road in late July 2005 between 12:00 PM and 8:00 PM. The survey questions were provided on a self-addressed stamped postcard. Drivers were asked to fill out the survey card and drop it in a mailbox. The surveys were intended to measure (1) whether drivers thought Wolfe Road was safer as a result of the treatments and (2) which treatments are most effective. A sample survey card is contained in the appendix.

### Study Results

Results of the data collection are summarized on Tables 1 and 2 below. Additional data is provided in the attached appendix.

**Table 1**  
**Wolfe Road Bike Study - Engineering Data Summary**

Measurement	July 2004	July 2005	% Change <sup>1</sup>
<b>Vehicle Behavior</b>			
Total Vehicle Lane Changes (# Veh)	618	573	-7.3%
85th Percent Vehicle Speeds <sup>2</sup> (mph)	44.3	42.3	-4.5%
Total Traffic Count <sup>3</sup> (ADT)	37,175	36,879	-0.8%
Percent ADT Right Lane <sup>3</sup>	33.3%	35.2%	+5.6%
Percent ADT Left Lane <sup>3</sup>	66.7%	64.8%	-2.8%
<b>Bike Behavior</b>			
Total Bike Trips	28	28	-0.0%
Bikes on Shoulder/Sidewalk	22	10	-54.5%
Bikes in Travel Lane	6	18	+200.0%
<b>Accident Summary<sup>4</sup></b>			
Total Accidents on Segment	13	10	-23.1%
Accidents Involving Bikes	0	0	0%

<sup>1</sup>Relative to 2004 data  
<sup>2</sup> Two day average, Tuesday through Wednesday  
<sup>3</sup> Includes northbound plus southbound, 3 day average Tuesday through Thursday  
<sup>4</sup> Compares same months preceding signs/markings to after signs/markings (approx. 8 months of data)

**Table 2**  
**Wolfe Road Bike Study - Driver Opinion**

Question	% Response*	
	Yes	No
<b>General (Y/N)</b>		
Notice Signs for Bikes?	72.5%	27.5%
Notice Pavement Markings?	88.2%	11.8%
Signs/Markings Increase Bike Awareness?	74.5%	25.5%
City Should Leave Signs?	87.5%	12.5%
City Should Leave Pavement Markings?	100.0%	0.0%
<b>Safety (Choose One)</b>		
Signs/Markings Increase Safety?	60.5%	
Signs/Marking No Impact on Safety?	37.2%	
Signs/Markings Decrease Safety?	<u>2.3%</u>	
<i>Total</i>	100.0%	
<b>Effectiveness (Choose One)</b>		
Overhead Signs Most Effective?	6.1%	
Pavement Markings Most Effective?	26.5%	
Combination Signs/Markings Most Effective?	<u>67.3%</u>	
<i>Total</i>	100%	

\* Based on 51 total responses.

## Conclusions

The following represents Hexagon's opinions as to the conclusions that can be inferred from the data collection.

- Vehicle speeds.** Vehicle speeds dropped slightly on the study segment. Although motor vehicle speeds typically fluctuate from day to day, the difference between the before and after surveys was possibly due to (1) more bikes using the curb lane and (2) increased driver awareness of the possibility of encountering a bicyclist.
- Traffic Volume.** Traffic volumes were relatively consistent before and after the bike treatments. There were no significant changes in traffic volumes or the percentage of traffic in each travel lane. There did not appear to be any traffic diversion away from Wolfe Road as a result of the treatments.
- Vehicle Lane Changes.** The number of lane changes dropped slightly between the survey periods. However, this was probably due to typical fluctuations in driver behavior and not necessarily due to the treatments.
- Number of bike trips.** The number of bike trips was exactly the same during the before and after periods. Bike travel on the study segment did not increase as a result of the treatments.

5. **Position of bikes in lanes.** The number of bike trips in the curb lane increased significantly. With the treatments, bikes were much more likely to use the curb lane as opposed to the shoulder area or sidewalk. Most likely, the treatments made bikers feel more comfortable in using the curb lane.
6. **Accident Data.** The overall number of accidents dropped slightly and there were no accidents involving bikes during the study period. Thus far, the accident data indicate that there are no adverse safety issues associated with the treatments. However, accurate accident data often require years to compile. For this reason, Hexagon recommends that this metric be monitored very closely in the future.
7. **Driver Surveys.** To gauge driver opinion, 300 survey cards were distributed to drivers on the study segment. Of these, 51 were returned. Given the number of responses, these data are statistically significant to plus or minus 10 percentage points, with a confidence interval of 90 percent. Generally, the drivers that responded to the survey were (1) supportive of the treatments, (2) believe the treatments increase safety, and (3) believe the pavement markings are more effective than the overhead signs.
8. **Field Observations.** No unsafe motor vehicle "swerving" (to avoid bikes) was observed during the surveys. Due to the width of the curb lane, motor vehicles either (1) change lanes, (2) straddle the stitch line, or (3) stay in the curb lane to pass bikes. A driver's decision to choose one of these options depends on the position of the bike in the curb lane, the proximity of parked vehicles, and the proximity of other motor vehicle traffic. Since there were few bikes on the study segment during the observations, it is difficult to draw a conclusion as to whether the treatments resulted in better conditions for bikes. It was the opinion of the engineers in the field that conditions, from the perspective of a cyclist, were generally unchanged as a result of the treatments.

In summary, the bike treatments have had little effect on overall traffic operations on the study segment. There has been no measurable traffic diversion away from the study segment, no increase in accidents or unsafe vehicle maneuvers, and no increase in the number of bike trips. Thus far, the primary impact of the treatments has been to encourage bikes to use the curb lane, as opposed to the shoulder area or sidewalk. Generally, the public is supportive of the treatments as constructed.

Moving forward, it is recommended that the accident data on the study segment be closely monitored. The low number of bike trips on the study segment (approximately 1 every 12 minutes) is likely one of the primary reasons for the relatively minor changes in traffic operations. Should the number of bike trips increase substantially, traffic and safety conditions could change.

This concludes our analysis. If you have any questions, please feel free to give us a call.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.



Brett Walinski  
Senior Project Manager



HEXAGON TRANSPORTATION CONSULTANTS, INC.

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## Appendix

## MARKS TRAFFIC DATA

Page 1

## CITY OF SUNNYVALE

## WOLFE RD. btwn GARY AV. &amp; IRIS AV.

Curb lane only

## SOUTHBOUND

Site Code: 1  
wolfe-s

Start Time	25	26	28	30	32	34	36	38	40	42	44	46	48	49	50	Total
	1	1	0	2	3	8	11	9	3	3	3	3	3	3	3	47
07/26/05 01:00	1	0	0	0	3	4	3	6	4	6	2	2	0	0	0	31
02:00	0	0	1	1	0	3	1	2	3	0	0	0	0	0	0	11
03:00	0	0	0	0	1	0	0	0	2	0	1	2	1	1	1	9
04:00	1	0	0	0	0	3	3	6	3	2	0	2	2	2	0	22
05:00	0	0	0	0	1	4	4	3	10	3	3	3	0	1	1	41
06:00	3	1	0	3	7	16	16	9	14	9	5	3	0	4	4	98
07:00	4	1	6	6	16	22	41	40	35	31	12	9	4	12	12	239
08:00	6	0	3	5	18	34	67	59	47	36	14	7	6	6	6	308
09:00	8	2	5	7	25	53	73	52	62	35	24	13	6	6	7	372
10:00	2	1	0	5	18	36	44	52	44	32	20	13	3	6	6	276
11:00	31	1	7	21	46	68	74	76	57	33	15	7	3	4	4	443
12 PM	22	0	2	7	33	88	116	71	77	42	23	12	4	6	6	503
13:00	19	0	4	10	18	55	65	85	47	34	12	8	4	5	5	366
14:00	35	0	5	5	20	39	70	55	53	31	25	16	6	6	4	364
15:00	21	5	5	14	24	30	61	87	69	36	21	8	4	7	7	392
16:00	16	5	19	19	36	65	88	87	74	46	27	15	8	11	5	516
17:00	19	9	27	61	100	155	161	101	75	40	21	11	3	7	7	790
18:00	30	12	34	84	124	150	158	120	80	34	21	11	1	6	6	865
19:00	3	3	11	32	54	115	141	79	63	30	17	12	2	2	2	564
20:00	9	0	14	17	62	89	98	60	38	25	13	4	0	4	4	433
21:00	8	2	6	5	34	47	53	41	38	9	14	3	2	3	3	265
22:00	3	1	5	7	16	21	26	25	19	18	12	4	1	3	3	161
23:00	1	0	1	4	7	16	13	13	12	13	2	3	4	1	1	90
Total	243	44	155	317	672	1121	1389	1149	928	546	308	167	66	101	7206	
Grand Total	243	44	155	317	672	1121	1389	1149	928	546	308	167	66	101	7206	

Statistics	Mean Speed(Average) :	37 MPH
	15th Percentile :	32 MPH
	50th Percentile :	37 MPH
	85th Percentile :	42 MPH
	95th Percentile :	45 MPH
	Number in Pace :	5259
	Percent in Pace :	73.0%
	Number of Vehicles > 35 MPH :	4654
	Percent of Vehicles > 35 MPH :	64.6%

## MARKS TRAFFIC DATA

Page 2

## CITY OF SUNNYVALE

## WOLFE RD, btwn GARY AV. &amp; IRIS AV.

Curb lane only  
SOUTHBOUND

Start Time	25	26	28	30	32	34	36	38	40	42	44	46	48	50	Total
07/27/05	1	0	0	1	7	7	8	9	10	4	2	0	1	1	51
01:00	1	0	0	1	1	2	4	5	3	2	1	1	0	0	21
02:00	0	0	0	0	1	7	7	3	1	0	0	0	0	0	19
03:00	0	0	0	0	0	1	0	0	2	1	2	2	0	1	9
04:00	1	0	1	0	0	3	3	1	1	4	2	1	0	1	21
05:00	2	0	1	0	1	5	5	2	11	9	3	2	0	1	42
06:00	3	1	2	5	6	13	17	21	20	9	10	2	2	1	112
07:00	11	0	3	9	13	29	36	46	44	20	20	12	4	7	254
08:00	3	5	4	16	18	40	50	64	50	33	22	7	4	7	323
09:00	15	0	6	8	28	44	46	75	48	41	11	9	3	6	340
10:00	17	0	4	2	16	36	53	60	48	26	17	13	7	5	304
11:00	61	3	5	17	29	60	80	62	39	28	11	3	4	2	404
12 PM	50	2	4	15	36	78	83	75	53	48	25	14	13	7	503
13:00	45	3	8	11	30	39	72	61	53	29	15	6	3	1	376
14:00	37	0	8	7	29	44	56	69	74	41	18	11	3	4	401
15:00	64	3	0	5	25	48	76	76	58	33	10	11	2	6	417
16:00	74	1	7	14	41	71	89	75	59	34	21	14	7	6	513
17:00	87	4	10	44	89	143	158	103	56	39	21	14	7	7	782
18:00	79	12	25	63	94	161	138	103	80	44	20	11	4	4	838
19:00	27	3	14	31	58	114	119	81	62	24	13	6	6	4	562
20:00	13	0	4	17	61	63	77	69	44	30	9	2	1	6	396
21:00	7	2	3	14	18	34	61	29	39	31	7	5	1	5	256
22:00	8	0	1	6	18	20	25	30	20	13	8	2	3	0	154
23:00	3	1	0	2	5	10	14	22	15	14	9	3	2	3	103
Total	609	40	110	288	628	1071	1277	1143	889	558	277	149	78	84	7201
Grand Total															

Statistics	Mean Speed(Average)	36 MPH
	10 MPH Pace Speed	32-41 MPH
	Number in Pace	5008
	Percent in Pace	69.5%
	Number of Vehicles > 35 MPH	4455
	Percent of Vehicles > 35 MPH	61.9%

## MARKS TRAFFIC DATA

Page 1

## CITY OF SUNNYVALE

## WOLFE RD. btwn GARY AV. &amp; IRIS AV.

Curb lane only

Site Code: 1

wolfe-n

## NORTH-BOUND

Start Time	25	26	28	30	32	34	36	38	40	42	44	46	48	50	Total
07/26/05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	1	2	0	0	2	0	0	0	8
05:00	2	3	1	1	0	7	4	7	9	3	1	2	2	0	49
06:00	2	0	1	0	4	20	26	26	17	17	10	8	5	7	143
07:00	9	6	7	7	14	53	61	61	52	38	18	16	1	4	347
08:00	25	7	19	39	56	83	115	91	74	48	20	14	8	4	603
09:00	17	13	15	30	76	104	110	83	86	37	27	7	5	3	613
10:00	3	0	3	3	26	38	50	50	64	62	35	23	8	3	326
11:00	7	1	0	4	9	34	47	48	47	28	23	7	5	2	262
12 PM	1	0	2	11	26	51	71	61	53	26	19	7	4	4	336
13:00	5	1	5	11	28	63	77	79	90	43	25	6	6	2	443
14:00	5	3	4	11	17	33	46	34	38	36	16	9	4	6	262
15:00	5	0	2	6	10	44	52	38	44	48	21	11	2	6	289
16:00	5	1	4	5	19	41	62	51	58	33	22	8	3	3	315
17:00	1	0	0	10	23	43	60	45	38	37	26	9	7	8	307
18:00	7	2	4	8	24	34	69	66	60	27	17	12	2	2	334
19:00	5	0	3	5	30	37	71	57	43	27	14	5	4	5	306
20:00	5	4	4	15	34	61	60	55	36	21	6	3	3	2	309
21:00	6	0	4	8	22	35	48	38	30	13	4	5	4	1	218
22:00	1	0	1	7	9	19	16	30	18	11	4	1	2	2	121
23:00	1	1	2	1	5	10	14	14	6	5	5	3	0	0	67
Total	112	42	83	184	444	816	1074	959	868	539	304	144	75	65	5709
Grand Total															

15th Percentile :

33 MPH

50th Percentile :

38 MPH

85th Percentile :

43 MPH

95th Percentile :

45 MPH

Mean Speed(Average) :

38 MPH

10 MPH Pace Speed :

34-43 MPH

Number in Pace :

4256

Percent in Pace :

74.5%

Number of Vehicles &gt; 35 MPH :

4028

Percent of Vehicles &gt; 35 MPH :

70.6%

MARKS TRAFFIC DATA

**CITY OF SUNNYVALE**  
**WOLFE RD.** btwn GARY AV. & IRIS AV.  
Curb lanes only

Site Code: 1

Statistics	Mean Speed(Average)
15th Percentile :	34 MPH
50th Percentile :	38 MPH
85th Percentile :	42 MPH
95th Percentile :	46 MPH
10 MPH Pace Speed :	38 MPH
Number in Pace :	34-43 MPH
Percent in Pace :	4443
Number of Vehicles > 35 MPH :	76.8%
Percent of Vehicles > 35 MPH :	4317
	74.6%

## MARKS TRAFFIC DATA

Page 4

CITY OF SUNNYVALE

WOLFE RD. btwn IRIS AV. &amp; GARY AV.

Tras

Site Code: 1  
WOLFE2-N

NORTHBOUND		31	33	35	37	39	41	43	45	47	49	51	Total
Start Time	1	27	29	31	33	35	37	39	41	43	45	47	25
Time	26	28	30	32	34	36	38	40	42	44	46	48	2
01:00	0	0	0	1	0	0	4	7	1	3	4	1	13
02:00	0	0	0	2	0	0	2	2	1	1	1	1	12
03:00	0	0	0	0	0	0	1	1	2	0	1	1	7
04:00	1	0	0	2	0	0	4	2	3	2	1	0	18
05:00	1	1	0	0	6	5	4	13	9	3	4	5	53
06:00	1	0	0	2	9	8	19	31	27	26	18	17	6
07:00	6	0	0	8	12	33	62	86	65	54	47	26	169
08:00	11	12	16	23	41	79	87	124	116	72	59	35	12
09:00	5	2	6	10	35	64	70	100	112	71	43	16	13
10:00	2	0	1	5	10	32	42	44	48	50	25	17	10
11:00	3	2	0	1	13	19	45	50	50	37	33	21	11
12 PM	11	0	6	14	15	27	51	66	73	50	44	16	5
13:00	2	2	2	7	12	22	69	84	100	65	36	20	399
14:00	1	1	2	6	5	19	54	65	61	37	40	17	12
15:00	3	1	2	5	10	32	48	38	47	38	33	24	10
16:00	2	0	0	4	7	12	35	53	61	48	38	19	15
17:00	2	0	1	6	5	19	28	52	63	47	36	34	8
18:00	4	0	4	3	2	16	40	48	53	45	48	18	555
19:00	3	0	0	9	12	26	38	65	60	48	26	13	297
20:00	2	2	1	6	22	35	50	41	40	30	18	11	11
21:00	0	1	1	7	9	23	36	43	25	21	12	11	12
22:00	0	0	0	2	9	14	18	24	13	16	9	5	3
23:00	0	0	1	4	7	9	7	6	12	6	8	3	116
Total	61	24	45	125	242	499	816	1047	1041	775	585	339	150
Grand Total	61	24	45	125	242	499	816	1047	1041	775	585	339	151
													5900

Statistics	Mean Speed(Average) :	41 MPH
	10 MPH Pace Speed :	36 MPH
	37-46 MPH :	41 MPH
	Number in Pace :	4264
	Percent in Pace :	72.3%
	Number of Vehicles > 35 MPH :	5154
	Percent of Vehicles > 35 MPH :	87.4%

## MARKS TRAFFIC DATA

CITY OF SUNNYVALE

WOLFE RD. btwn IRIS AV. &amp; GARY AV.

## NORTHBOUND

	Start Time	27	29	31	33	35	37	39	41	43	45	47	49	51	Total
07/21/04	26	28	30	32	34	36	38	40	42	44	46	48	50	9999	235
01:00	0	0	0	1	0	1	4	3	4	1	0	0	0	1	16
02:00	1	0	0	0	0	1	2	1	1	2	1	1	0	0	10
03:00	0	0	0	0	0	0	1	2	0	1	0	1	1	0	6
04:00	0	0	0	0	1	0	1	0	2	3	4	2	1	0	14
05:00	1	0	3	1	8	6	7	13	9	7	1	3	0	4	63
06:00	4	1	0	4	15	14	31	29	30	12	9	9	2	4	164
07:00	8	3	8	14	35	71	86	74	44	24	23	11	5	7	413
08:00	5	8	16	39	88	138	136	118	59	35	14	11	6	7	680
09:00	5	2	5	14	40	101	113	91	59	47	18	18	4	4	521
10:00	2	1	1	7	24	32	63	78	42	26	12	14	3	1	306
11:00	1	0	0	10	16	39	52	55	40	19	11	12	4	5	264
12:PM	5	4	5	20	35	51	82	59	50	36	16	16	7	6	378
13:00	2	2	8	22	47	82	92	61	56	32	14	16	5	6	434
14:00	1	0	2	15	30	53	55	62	46	28	14	7	5	1	319
15:00	4	2	13	11	27	45	51	43	40	22	18	5	0	3	284
16:00	5	0	2	8	25	55	80	67	52	28	11	14	3	3	353
17:00	5	0	2	8	36	51	51	71	64	37	17	5	0	5	352
18:00	1	0	2	7	23	52	71	60	43	35	23	4	3	5	329
19:00	3	0	5	10	17	37	55	49	34	27	18	7	2	2	266
20:00	1	1	7	15	30	56	55	50	25	19	6	2	3	5	275
21:00	0	1	3	15	27	53	49	40	17	19	8	7	0	0	239
22:00	0	0	0	5	14	18	17	27	21	16	11	6	1	0	136
23:00	0	0	5	3	2	10	17	7	4	7	1	2	2	2	62
Total	56	25	88	231	543	973	1180	1068	748	483	248	150	57	69	5919
Grand Total															

Statistics      Mean Speed(Average) : 39 MPH  
                   10 MPH Pace Speed : 34 MPH  
                   Number in Pace : 33-42 MPH  
                   50th Percentile : 38 MPH  
                   85th Percentile : 43 MPH  
                   95th Percentile : 46 MPH

Number of Vehicles > 35 MPH : 4490  
                   Percent of Vehicles > 35 MPH : 75.9%

Site Code: 1  
                   WOLFE2-N

WOLFE RD. btwn IRIS AV. & GARY AV.

SOUTHBOUND		WOLFE2-S												
Start Time	27	29	31	33	35	37	39	41	43	45	47	49	51	Total
Time	26	28	30	32	34	36	38	40	42	44	46	48	50	9999
07/20/04 01:00	0	0	2	2	2	4	13	10	6	1	8	1	2	1
02:00	1	0	2	1	1	1	1	6	4	5	2	1	1	1
03:00	0	0	0	2	3	1	0	2	1	1	1	2	1	10
04:00	0	0	0	0	0	0	1	1	1	0	0	0	1	11
05:00	2	1	0	4	2	7	7	5	2	5	6	1	1	45
06:00	1	2	4	4	4	11	11	16	20	10	8	6	1	97
07:00	3	2	2	5	7	20	38	40	48	38	23	8	8	250
08:00	3	1	3	2	13	34	38	52	54	47	32	16	12	318
09:00	4	1	0	4	17	37	58	41	49	49	25	22	7	2
10:00	6	0	4	3	21	39	57	51	48	32	20	19	8	316
11:00	4	1	8	11	22	58	68	75	72	55	20	24	7	7
12PM	12	5	10	13	43	70	115	113	71	46	26	14	7	10
13:00	4	4	4	11	35	50	70	67	61	36	23	9	6	385
14:00	2	0	0	4	22	45	76	77	59	37	21	15	5	373
15:00	1	3	3	19	25	48	66	90	64	46	23	22	8	14
16:00	0	0	4	16	29	50	73	127	83	54	40	24	6	511
17:00	15	19	31	49	81	106	111	124	88	64	36	16	7	11
18:00	25	15	27	56	87	143	159	152	76	50	27	17	5	846
19:00	7	3	8	36	68	120	122	115	78	48	22	7	3	646
20:00	16	2	2	6	40	73	76	84	66	33	23	7	3	440
21:00	4	1	4	11	18	48	45	46	44	28	21	9	5	287
22:00	1	0	1	4	12	29	28	28	23	20	8	10	4	3
23:00	0	0	0	3	5	10	12	18	14	14	5	6	2	1
Total	111	60	117	268	558	1004	1246	1344	1035	709	424	257	108	132

Statistics	Mean Speed(Average) :	39 MPH
	10 MPH Pace Speed :	35-44 MPH
	Number in Pace :	5338
	Percent in Pace :	72.4%
	Number of Vehicles > 35 MPH :	5757
	Percent of Vehicles > 35 MPH :	78.1%
Grand Total	111	60
	117	268
		558
		1004
		1246
		1344
		1035
		709
		424
		257
		108
		132
		7373

## MARKS TRAFFIC DATA

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CITY OF SUNNYVALE

WOLFE RD. btwn IRIS AV. &amp; GARY AV.

## SOUTHBOUND

Site Code: 2  
WOLFE2-S

Start Time	27	29	31	33	35	37	39	41	43	45	47	49	51	Total
Time	26	28	30	32	34	36	38	40	42	44	46	48	50	9999
07/21/04	0	0	1	1	3	6	7	9	11	3	6	2	1	53
01:00	1	0	0	0	0	2	3	4	2	2	2	1	0	26
02:00	0	1	0	0	0	5	2	1	2	1	1	1	1	21
03:00	0	1	0	0	1	2	2	5	2	4	0	0	1	20
04:00	0	1	0	0	1	2	5	0	3	1	0	0	0	17
05:00	3	0	0	0	0	1	6	5	4	6	4	1	3	41
06:00	2	1	2	3	9	11	12	14	10	11	5	5	2	88
07:00	4	0	2	4	9	20	31	36	44	43	30	6	3	240
08:00	4	0	3	5	8	23	40	59	48	44	28	13	10	302
09:00	1	1	2	6	22	39	51	49	56	50	26	11	8	332
10:00	3	0	1	8	16	36	52	57	55	40	22	8	2	303
11:00	2	1	6	10	22	57	88	77	75	53	33	21	10	13
12 PM	5	2	5	11	29	37	83	91	101	67	36	20	7	6
13:00	6	1	0	8	27	48	71	74	58	40	24	16	10	393
14:00	1	1	1	7	18	41	65	66	77	47	32	16	5	390
15:00	1	1	1	4	16	64	83	103	70	56	44	10	8	473
16:00	3	7	9	11	36	67	91	85	81	49	32	20	11	555
17:00	8	4	22	42	81	139	148	126	93	64	43	12	4	798
18:00	18	27	42	58	101	132	142	124	90	49	28	16	8	638
19:00	29	2	12	14	41	102	149	104	89	40	33	12	12	644
20:00	7	2	8	14	34	59	72	77	53	48	22	8	6	415
21:00	3	1	6	8	18	39	48	35	40	20	8	7	4	243
22:00	3	1	1	6	16	26	37	30	30	17	14	7	4	199
23:00	1	1	3	5	3	10	14	14	12	12	7	4	1	92
Total	105	56	127	226	513	976	1302	1250	1108	767	484	221	122	154

Grand Total

Statistics	Mean Speed(Average):	40 MPH
10 MPH Pace Speed:	35 MPH	
50th Percentile:	39 MPH	
85th Percentile:	44 MPH	
95th Percentile:	48 MPH	
Number in Pace:	5403	
Percent in Pace:	72.9%	
Number of Vehicles > 35 MPH:	5896	
Percent of Vehicles > 35 MPH:	79.6%	

Site Code: 2

WOLFE2-S

Total

# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Sicow Lane/Lane #2)  
 Jurisdiction City of Sunnyside  
 Study Type Volume [ch1]  
 Location Code 549  
 Direction South  
 Date 07/07/04  
 Real Time 08:50  
 Start Date 07/08/04  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 13  
 Machine Number 5

Thursday, July 08, 2004

07/08/04												
HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total	00-15	15-30	30-45	45-00
00	61	24	12	13	12	00	48	20	11	9	8	24
01	24	7	8	6	3	01	27	11	6	5	5	14
02	17	5	4	6	2	02	20	3	8	5	4	19
03	15	4	4	3	4	03	14	2	5	4	3	15
04	13	4	3	2	4	04	13	2	7	0	4	12
05	40	5	7	11	17	05	40	8	6	9	17	12
06	127	21	33	23	50	06	103	23	18	26	36	62
07	252	58	65	62	77	07	222	42	58	63	59	77
08	301	64	78	67	92	08	269	61	60	88	88	195
09	291	72	80	72	67	09	318	76	73	83	79	324
10	337	89	93	67	88	10	313	68	83	72	90	380
11	206	67	74	33	49	57	11	290	80	90	65	102
12	276	74	78	56	68	12	366	75	82	93	116	442
13	321	63	82	89	87	13	399	99	111	104	85	411
14	325	79	81	73	92	14	425	95	110	107	113	433
15	394	94	98	116	86	15	496	139	110	116	131	398
16	564	135	130	125	174	16	562	116	154	134	158	425
17	768	173	195	201	199	17	813	176	222	195	220	400
18	770	201	213	156	200	18	737	195	174	194	174	423
19	571	177	152	128	113	19	545	170	124	136	115	376
20	380	125	102	88	65	20	393	102	100	101	91	334
21	309	96	75	81	57	21	291	83	73	71	64	262
22	178	50	48	46	34	22	205	47	53	54	51	178
23	103	29	27	27	20	23	138	35	41	38	24	139
	6643	Total					7047	Total				5945

AM Peak Hour Start 10:00  
 AM Peak Hour Total 337  
 AM Peak Hour Factor 90.59 %  
 PM Peak Hour Start 17:30  
 PM Peak Hour Total 814  
 PM Peak Hour Factor 95.54 %

AM Peak Hour Start 10:30  
 AM Peak Hour Total 332  
 AM Peak Hour Factor 92.22 %  
 PM Peak Hour Start 17:15  
 PM Peak Hour Total 832  
 PM Peak Hour Factor 93.69 %

AM Peak Hour Start 11:00  
 AM Peak Hour Total 418  
 AM Peak Hour Factor 89.32 %  
 PM Peak Hour Start 13:45  
 PM Peak Hour Total 450  
 PM Peak Hour Factor 95.34 %

AM Peak Hour Start	10:45
AM Peak Hour Total	383
AM Peak Hour Factor	87.84 %
PM Peak Hour Start	12:30
PM Peak Hour Total	459
PM Peak Hour Factor	89.66 %
07/08/04	5137 Total

AM Peak Hour Start	10:30
AM Peak Hour Total	332
AM Peak Hour Factor	92.22 %
PM Peak Hour Start	17:15
PM Peak Hour Total	832
PM Peak Hour Factor	93.69 %
07/08/04	5945 Total

AM Peak Hour Start	10:00
AM Peak Hour Total	418
AM Peak Hour Factor	89.32 %
PM Peak Hour Start	13:45
PM Peak Hour Total	450
PM Peak Hour Factor	95.34 %
07/08/04	5137 Total

AM Peak Hour Start	11:00
AM Peak Hour Total	332
AM Peak Hour Factor	89.32 %
PM Peak Hour Start	13:45
PM Peak Hour Total	450
PM Peak Hour Factor	95.34 %
07/08/04	5945 Total



# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Slow Lane/Lane #2)  
Jurisdiction City of Sunnyvale  
Study Type Volume (chi)  
Location Code 549  
Direction South  
Date 07/07/04  
Real Time 08:50  
Start Date 07/08/04  
Start Time 00:00  
Sample Time 00:15  
Operator Number 13  
Machine Number 5

Friday, July 16, 2004

HR	HR	07/16/04			
Begin	Total	00-15	15-30	30-45	45-00
00	59	17	12	22	8
01	30	10	6	8	6
02	30	6	8	10	6
03	16	1	2	7	6
04	19	5	4	4	6
05	50	14	9	11	16
06	109	16	23	25	45
07	201	27	43	62	69
08	308	84	66	72	86
09	237	78	67	72	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
					1059   Total

AM Peak Hour Start 08:30  
AM Peak Hour Total 323  
AM Peak Hour Factor 92.82 %  
PM Peak Hour Start 19  
PM Peak Hour Total 20  
PM Peak Hour Factor

# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Fast Lane/Lane #1)  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 549  
 Direction South  
 Date 07/07/04  
 Real Time 08:50  
 Start Date 07/08/04  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 13  
 Machine Number 5

Thursday, July 08, 2004

07/08/04									
HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30
00	95	39	20	18	18	00	84	33	20
01	41	10	12	11	8	01	44	20	8
02	25	9	5	8	3	02	36	11	11
03	26	7	8	4	7	03	22	2	6
04	20	5	5	2	8	04	21	3	10
05	68	6	11	23	28	05	72	12	19
06	212	37	48	40	40	06	171	37	29
07	463	106	103	116	138	07	396	79	99
08	548	129	143	120	156	08	642	104	136
09	534	142	138	127	127	09	562	136	143
10	611	157	166	133	155	10	623	156	160
11	754	151	152	197	254	11	822	172	195
12	931	284	251	220	176	12	989	275	260
13	705	195	173	171	166	13	727	184	201
14	641	166	153	148	174	14	785	166	207
15	767	166	201	213	187	15	891	255	185
16	1130	267	253	274	336	16	1045	213	241
17	1552	343	424	406	380	17	1642	341	422
18	1630	393	466	337	434	18	1378	362	345
19	1172	363	312	252	245	19	1040	319	265
20	745	230	197	182	136	20	720	193	183
21	537	169	132	140	97	21	516	161	133
22	350	101	91	101	57	22	357	94	92
23	186	48	48	51	39	23	241	63	64
	13743	Total					13526	Total	8280

07/09/04									
HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30
00	84	33	20	15	16	00	165	42	46
01	44	20	8	9	7	01	88	30	21
02	36	11	6	8	3	02	61	23	16
03	22	2	6	10	4	03	26	6	10
04	21	3	10	1	7	04	20	5	6
05	72	12	10	19	31	05	48	9	12
06	171	37	29	43	62	06	110	29	25
07	396	79	99	111	107	07	207	36	45
08	642	104	136	121	181	08	360	74	90
09	562	136	143	133	150	09	610	149	128
10	623	156	160	131	186	10	754	180	197
11	822	172	195	223	232	11	777	174	185
12	989	275	260	265	209	12	763	206	192
13	727	184	201	184	158	13	773	180	184
14	785	166	207	203	209	14	760	184	205
15	891	255	185	218	233	15	741	195	168
16	1045	213	241	303	303	16	774	191	196
17	1642	341	422	363	416	17	978	227	257
18	1378	362	345	362	319	18	129	111	9
19	1040	319	265	233	223	19	63	4	28
20	720	193	183	181	163	20	5	0	5
21	516	161	133	128	104	21	2	0	2
22	357	94	92	90	81	22	3	0	1
23	241	63	64	48	48	23	63	0	0
	13526	Total					1323	Total	8280

07/10/04									
HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30
00	84	33	20	15	16	00	165	42	46
01	44	20	8	9	7	01	88	30	21
02	36	11	6	8	3	02	61	23	16
03	22	2	6	10	4	03	26	6	10
04	21	3	10	1	7	04	20	5	6
05	72	12	10	19	31	05	48	9	12
06	171	37	29	43	62	06	110	29	25
07	396	79	99	111	107	07	207	36	45
08	642	104	136	121	181	08	360	74	90
09	562	136	143	133	150	09	610	149	128
10	623	156	160	131	186	10	754	180	197
11	822	172	195	223	232	11	777	174	185
12	989	275	260	265	209	12	763	206	192
13	727	184	201	184	158	13	773	180	184
14	785	166	207	203	209	14	760	184	205
15	891	255	185	218	233	15	741	195	168
16	1045	213	241	303	303	16	774	191	196
17	1642	341	422	363	416	17	978	227	257
18	1378	362	345	362	319	18	129	111	9
19	1040	319	265	233	223	19	63	4	28
20	720	193	183	181	163	20	5	0	5
21	516	161	133	128	104	21	2	0	2
22	357	94	92	90	81	22	3	0	3
23	241	63	64	48	48	23	63	0	0
	13526	Total					1323	Total	8280

AM Peak Hour Start	11:00
AM Peak Hour Total	822
AM Peak Hour Factor	88.58 %
PM Peak Hour Start	17:15
PM Peak Hour Total	1553
PM Peak Hour Factor	92.00 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	822
AM Peak Hour Factor	88.58 %
PM Peak Hour Start	17:15
PM Peak Hour Total	1553
PM Peak Hour Factor	92.00 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

AM Peak Hour Start	11:00
AM Peak Hour Total	777
AM Peak Hour Factor	85.20 %
PM Peak Hour Start	16:45
PM Peak Hour Total	989
PM Peak Hour Factor	82.42 %

# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Fast Lane/Lane #1)

Jurisdiction City of Sunnyvale  
Study Type Volume (ch2)

Location Code 549  
Direction South  
Date 07/07/04  
Real Time 08:50  
Start Date 07/08/04  
Start Time 00:00  
Sample Time 00:15  
Operator Number 13  
Machine Number 5

Monday, July 12, 2004

07/12/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total
00	1	0	0	1	0	0	00	69	26
01	0	0	0	0	0	0	01	35	9
02	0	0	0	0	0	0	02	25	5
03	4	0	3	0	0	0	03	31	8
04	5	1	4	0	0	0	04	26	6
05	1	0	0	0	1	5	05	75	7
06	4	1	0	0	3	0	06	153	27
07	3	0	0	0	3	0	07	416	84
08	1	0	0	1	0	0	08	528	125
09	2	0	1	0	1	0	09	518	121
10	45	3	42	0	0	0	10	495	134
11	18	4	4	1	9	0	11	712	114
12	92	69	22	0	1	12	12	933	260
13	2	0	0	0	2	13	6	1	3
14	3	0	2	1	0	14	497	55	154
15	8	2	1	2	3	15	771	217	184
16	30	24	4	0	2	16	916	228	211
17	18	9	0	5	4	17	1417	303	361
18	20	8	2	5	5	18	102	342	373
19	5	1	3	0	1	19	1003	293	281
20	5	1	0	3	1	20	633	159	181
21	6	4	0	2	0	21	454	134	140
22	6	4	1	1	0	22	250	75	63
23	0	0	0	0	0	23	155	42	48
							279	7584	Total

07/13/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total
00	2	0	0	2	0	0	00	69	26
01	0	0	0	0	0	0	01	35	9
02	1	0	1	0	0	0	02	25	5
03	0	0	0	0	0	0	03	31	8
04	0	0	0	0	0	0	04	26	6
05	0	0	0	0	1	5	05	75	7
06	1	0	0	0	1	0	06	153	27
07	3	0	0	0	3	0	07	6	5
08	1	0	0	1	0	0	08	528	125
09	2	0	1	0	1	0	09	518	121
10	45	3	42	0	0	10	17	0	4
11	18	4	4	1	9	11	3	0	1
12	92	69	22	0	1	12	13	0	11
13	2	0	0	0	2	13	6	1	3
14	3	0	2	1	0	14	497	55	154
15	8	2	1	2	3	15	771	217	184
16	30	24	4	0	2	16	916	228	211
17	18	9	0	5	4	17	1417	303	358
18	20	8	2	5	5	18	102	342	373
19	5	1	3	0	1	19	1003	293	281
20	5	1	0	3	1	20	633	159	181
21	6	4	0	2	0	21	454	134	140
22	6	4	1	1	0	22	250	75	63
23	0	0	0	0	0	23	155	42	48
							279	7584	Total

07/14/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total
00	2	0	0	2	0	0	00	69	26
01	0	0	0	0	0	0	01	35	9
02	1	0	1	0	0	0	02	25	5
03	0	0	0	0	0	0	03	31	8
04	0	0	0	0	0	0	04	26	6
05	0	0	0	0	1	5	05	75	7
06	1	0	0	0	1	0	06	153	27
07	3	0	0	0	3	0	07	6	5
08	1	0	0	1	0	0	08	528	125
09	2	0	1	0	1	0	09	518	121
10	45	3	42	0	0	10	17	0	4
11	18	4	4	1	9	11	3	0	1
12	92	69	22	0	1	12	13	0	11
13	2	0	0	0	2	13	6	1	3
14	3	0	2	1	0	14	497	55	154
15	8	2	1	2	3	15	771	217	184
16	30	24	4	0	2	16	916	228	211
17	18	9	0	5	4	17	1417	303	358
18	20	8	2	5	5	18	102	342	373
19	5	1	3	0	1	19	1003	293	281
20	5	1	0	3	1	20	633	159	181
21	6	4	0	2	0	21	454	134	140
22	6	4	1	1	0	22	250	75	63
23	0	0	0	0	0	23	155	42	48
							279	7584	Total

07/15/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total
00	0	0	0	0	0	0	00	91	27
01	0	0	0	0	0	0	01	38	5
02	0	0	0	0	0	0	02	41	13
03	0	0	0	0	0	0	03	24	6
04	0	0	0	0	0	0	04	33	10
05	0	0	0	0	0	0	05	63	11
06	0	0	0	0	0	0	06	173	35
07	0	0	0	0	0	0	07	450	104
08	0	0	0	0	0	0	08	584	136
09	0	0	0	0	0	0	09	554	152
10	0	0	0	0	0	0	10	589	140
11	0	0	0	0	0	0	11	815	163
12	0	0	0	0	0	0	12	1032	305
13	0	0	0	0	0	0	13	700	176
14	0	0	0	0	0	0	14	636	145
15	0	0	0	0	0	0	15	751	174
16	0	0	0	0	0	0	16	945	198
17	0	0	0	0	0	0	17	1465	286
18	0	0	0	0	0	0	18	1479	409
19	0	0	0	0	0	0	19	320	79
20	0	0	0	0	0	0	20	715	219
21	0	0	0	0	0	0	21	462	116
22	0	0	0	0	0	0	22	287	82
23	0	0	0	0	0	0	23	165	52
								13143	Total

07/16/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total
00	0	0	0	0	0	0	00	91	27
01	0	0	0	0	0	0	01	38	5
02	0	0	0	0	0	0	02	41	13
03	0	0	0	0	0	0	03	24	6
04	0	0	0	0	0	0	04	33	10
05	0	0	0	0	0	0	05	63	11
06	0	0	0	0	0	0	06	173	35
07	0	0	0	0	0	0	07	450	104
08	0	0	0	0	0	0	08	584	136
09	0	0	0	0	0	0	09	554	152
10	0	0	0	0	0	0	10	589	140
11	0	0	0	0	0	0	11	815	163
12	0	0	0	0	0	0	12	1032	305
13	0	0	0	0	0	0	13	700	176
14	0	0	0	0	0	0	14	636	145
15	0	0	0	0	0	0	15	751	174
16	0	0	0	0	0	0	16	945	198
17	0	0	0	0	0	0	17	1465	286
18	0	0	0	0	0	0	18	1479	409
19	0	0	0	0	0	0	19	320	79
20	0	0	0	0	0	0	20	715	219
21	0	0	0	0	0	0	21	462	116
22	0	0	0	0	0	0	22	287	82
23	0	0	0	0	0	0	23	165	52
								13143	Total

07/17/04									
HR	HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total




<tbl\_r cells="10" ix="4" maxcspan="1" maxrspan="

## Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Fast Lane/Lane #1)

Jurisdiction City of Sunnyvale

Study Type Volume (ch2)

Location Code 549

Direction South

Date 07/07/04

Real Time 08:50

Start Date 07/08/04

Start Time 00:00

Sample Time 00:15

Operator Number 13

Machine Number 5

Friday, July 16, 2004

07/16/04

HR	Begin	HR Total	00-15	15-30	30-45	45-00
00	88	29	17	27	15	
01	48	13	12	14	10	
02	40	9	11	10	10	
03	34	2	3	19	10	
04	31	9	6	6	10	
05	81	20	14	19	28	
06	174	29	29	43	73	
07	336	53	75	95	113	
08	503	126	111	128	138	
09	377	120	133	124		
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
						1713 Total

AM Peak Hour Start 08:30  
AM Peak Hour Total 519  
AM Peak Hour Factor 94.02 %

PM Peak Hour Start  
PM Peak Hour Total  
PM Peak Hour Factor

# Mitron Systems Volume Count Report

Site Name	Wolfe Road between Gary Avenue and Iris Avenue (Fast Lane/Lane #1)									
Study Type	City of Sunnyvale Volume (ch2)									
Location Code	549									
Direction	North									
Date	07/07/04									
Real Time	08:21									
Start Date	07/08/04									
Start Time	00:00									
Sample Time	00:15									
Operator Number	21									
Machine Number	3									

Thursday, July 08, 2004

07/08/04										
HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total	00-15	15-30
00	59	23	15	10	11	00	63	19	16	12
01	34	10	7	7	10	01	32	10	7	5
02	20	7	5	6	2	02	25	9	2	7
03	15	5	3	2	5	03	19	5	6	3
04	29	4	4	8	13	04	37	7	5	7
05	136	14	18	40	64	05	112	10	18	28
06	373	65	76	102	130	06	310	55	61	80
07	813	116	202	226	269	07	753	108	155	228
08	1201	280	295	298	348	08	1216	237	298	353
09	1029	298	316	209	206	09	973	279	269	233
10	574	171	121	131	151	10	560	146	138	122
11	541	117	133	138	163	11	581	143	148	143
12	750	161	183	177	229	12	736	161	178	190
13	819	242	210	189	178	13	891	227	241	223
14	634	173	167	142	152	14	650	182	164	164
15	579	132	136	142	169	15	592	149	161	134
16	560	142	138	147	133	16	598	151	155	142
17	684	171	165	183	165	17	671	170	140	173
18	635	165	146	181	143	18	641	179	145	161
19	582	162	160	124	136	19	636	152	159	148
20	531	122	135	155	119	20	517	142	133	114
21	433	133	107	106	87	21	456	150	116	101
22	259	70	75	65	49	22	326	84	91	78
23	132	50	28	38	16	23	195	70	36	41
11422 Total										
11590 Total										

07/09/04										
HR	Total	00-15	15-30	30-45	45-00	Begin	HR	Total	00-15	15-30
00	63	19	16	16	12	00	113	34	34	24
01	32	10	10	7	5	01	68	26	13	20
02	25	9	2	7	7	02	32	13	6	6
03	19	5	5	6	3	03	17	3	3	8
04	37	7	5	7	18	04	19	4	5	4
05	112	10	18	28	56	05	49	11	7	14
06	310	55	61	80	114	06	91	23	14	25
07	753	108	155	228	262	07	185	40	41	52
08	1216	237	298	328	353	08	306	59	71	87
09	973	279	269	233	202	09	458	108	119	108
10	560	146	138	122	154	10	542	121	152	129
11	581	143	148	143	147	11	624	137	155	160
12	736	161	178	190	207	12	663	150	178	141
13	891	227	241	223	200	13	672	162	159	177
14	650	182	164	140	164	14	622	152	152	166
15	592	149	161	148	134	15	639	157	159	161
16	598	151	155	142	150	16	623	166	164	156
17	671	170	140	173	188	17	543	96	84	152
18	641	179	145	151	166	18	493	167	152	112
19	636	152	159	148	177	19	88	14	36	8
20	517	142	133	114	128	20	10	4	0	6
21	456	150	116	101	89	21	18	7	6	5
22	326	84	91	78	73	22	1	0	0	22
23	195	70	36	41	23	23	2	2	0	0
6878 Total										
1069 Total										

AM Peak Hour Start	08:15
AM Peak Hour Total	1258
AM Peak Hour Factor	89.09 %
PM Peak Hour Start	12:45
PM Peak Hour Total	692
PM Peak Hour Factor	93.15 %

AM Peak Hour Start	11:00
AM Peak Hour Total	624
AM Peak Hour Factor	90.70 %
PM Peak Hour Start	12:45
PM Peak Hour Total	50
PM Peak Hour Factor	24.40 %

AM Peak Hour Start	08:30
AM Peak Hour Total	1260
AM Peak Hour Factor	90.52 %
PM Peak Hour Start	12:45
PM Peak Hour Total	870
PM Peak Hour Factor	89.88 %

AM Peak Hour Start	08:45
AM Peak Hour Total	396
AM Peak Hour Factor	84.62 %
PM Peak Hour Start	21:15
PM Peak Hour Total	63
PM Peak Hour Factor	39.38 %

# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (East Lane/Lane #1)  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 549  
 Direction North  
 Date 07/07/04  
 Real Time 08:21  
 Start Date 07/08/04  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 21  
 Machine Number 3

Monday, July 12, 2004

		07/12/04					07/13/04					07/14/04					07/15/04													
HR	HR Total	00-15	15-30	30-45	45-00		HR	Total	00-15	15-30	30-45	45-00		HR	Total	00-15	15-30	30-45	45-00		HR	Total	00-15	15-30	30-45	45-00				
Begin		00	0	0	0	0	Begin		00	68	19	22	19	8	Begin		00	77	24	17	23	13	Begin		00	77	24	17	23	13
00	0	0	0	0	0	0	01	0	0	31	10	6	10	5	01	0	01	35	7	16	7	5	02	0	02	23	5	9	5	4
01	0	0	0	0	0	0	02	0	0	21	4	8	7	2	02	0	02	18	4	3	3	8	03	0	03	20	1	5	4	10
02	0	0	0	0	0	0	03	0	0	0	0	0	0	0	04	0	04	39	8	7	10	14	04	0	04	31	8	4	7	12
03	0	0	0	0	0	0	04	0	0	2	0	0	0	0	05	0	05	129	10	23	38	58	05	0	05	121	15	17	33	56
04	0	0	0	0	0	0	05	0	0	0	0	0	0	0	06	0	06	333	57	78	87	111	06	0	06	357	49	88	83	137
05	0	0	0	0	0	0	06	0	0	0	0	0	0	0	07	0	07	829	146	181	217	285	07	0	07	820	131	169	245	275
06	6	2	0	2	2	0	06	0	0	0	0	0	0	0	07	0	07	829	146	181	217	285	07	0	07	820	131	169	245	275
07	4	0	2	2	0	0	07	1	0	0	0	0	0	0	08	0	08	1345	263	331	341	410	08	0	08	1408	283	314	387	414
08	11	4	0	4	3	0	08	0	0	0	0	0	0	0	09	0	09	1030	299	299	255	177	09	0	09	1041	295	311	237	198
09	4	2	0	2	0	0	09	1	0	0	0	0	0	0	10	0	10	598	177	165	118	138	10	0	10	610	192	148	147	123
10	3	0	0	3	0	0	10	2	1	0	0	0	0	0	11	0	11	528	130	129	123	146	11	0	11	551	137	135	147	132
11	24	5	3	0	16	0	11	1	0	1	0	0	0	0	12	0	12	717	141	171	166	239	12	0	12	714	147	161	177	229
12	10	8	2	0	0	0	12	4	0	0	0	0	0	0	13	0	13	834	224	214	211	185	13	0	13	868	245	213	227	183
13	3	3	0	0	0	0	13	28	27	0	0	0	0	0	14	0	14	589	152	162	147	138	14	0	14	612	163	162	142	155
14	15	9	6	0	0	0	14	589	152	162	147	138	131	130	15	0	15	532	124	137	138	133	15	0	15	520	131	118	145	126
15	12	2	0	0	10	0	15	537	138	138	131	130	148	147	16	0	16	669	125	182	166	165	16	0	16	585	132	156	142	155
16	52	52	0	0	0	0	16	548	128	125	125	148	147	150	17	0	17	641	136	180	161	164	17	0	17	667	155	164	176	172
17	7	0	0	3	4	0	17	609	164	153	142	150	150	150	18	0	18	629	178	151	145	155	18	0	18	667	169	165	172	161
18	10	0	4	0	6	0	18	619	168	165	162	134	134	134	19	0	19	568	155	142	126	145	19	0	19	610	157	171	155	127
19	1	0	1	0	0	0	19	555	155	152	162	126	122	122	20	0	20	531	128	132	138	133	20	0	20	521	133	145	108	135
20	4	0	0	3	1	0	20	530	156	161	107	116	116	116	21	0	21	473	134	119	118	102	21	0	21	437	129	117	96	95
21	5	0	0	0	0	0	21	407	119	110	87	91	91	91	22	0	22	262	92	64	58	48	22	0	22	278	77	82	61	58
22	46	0	46	0	0	0	22	138	32	44	39	23	23	23	23	0	23	130	37	34	42	17	0	23	175	72	48	37	18	
23	0	0	0	0	0	0	23	4833	4833	4833	4833	4833	4833	4833	217	0	217	11582	11582	11582	11582	11582	217	0	217	11738	11738	11738	11738	11738

AM Peak Hour Start 03:45  
 AM Peak Hour Total 2  
 AM Peak Hour Factor 37.50 %  
 PM Peak Hour Start 16:15  
 PM Peak Hour Total 62  
 PM Peak Hour Factor 29.81 %

AM Peak Hour Start 11:00  
 AM Peak Hour Total 24  
 AM Peak Hour Factor 84.21 %  
 PM Peak Hour Start 17:45  
 PM Peak Hour Total 635  
 PM Peak Hour Factor 94.49 %

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1381  
 AM Peak Hour Factor 85.14 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 914  
 PM Peak Hour Factor 93.27 %

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1381  
 AM Peak Hour Factor 85.14 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 914  
 PM Peak Hour Factor 93.27 %

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1381  
 AM Peak Hour Factor 85.14 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 914  
 PM Peak Hour Factor 93.27 %

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1381  
 AM Peak Hour Factor 85.14 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 914  
 PM Peak Hour Factor 93.27 %

Nikon Systems Volume Count Report

Site Name		Wolfe Road between Gary Avenue and Iris Avenue (Fast Lane/Lane #1)	
Jurisdiction		City of Sunnyvale	
Study Type		Volume (ct/h)	
Location Code	Direction	Date	Time
549	North	07/07/04	08:21
		07/08/04	00:00
		00:15	3
		21	
			Operator Number
			Machine Number

Friday, July 16, 2004

AM Peak Hour Start	08:15
AM Peak Hour Total	1294
AM Peak Hour Factor	80.67 %
PM Peak Hour Start	
PM Peak Hour Total	
PM Peak Hour Factor	

**Electron Systems Volume Count Report**

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Slow Lane/Lane 2)  
Jurisdiction City of Sunnyvale  
Study Type Volume (chi)

Location Code		07/07/04										07/08/04										07/09/04										07/10/04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Section		HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00	HR	Total	00-15	15-30	30-45	45-00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
North	07/07/04	00	26	10	8	3	5	00	31	8	7	10	6	00	19	6	6	5	2	00	18	7	4	4	3	00	10	4	4	1	1	01	11	5	6	0	0	01	7	2	1	2	02	5	2	1	1	02	5	2	1	0	03	3	0	0	0	03	3	0	0	0	04	3	1	2	0	04	5	3	1	0	04	3	1	2	0	05	5	9	2	1	05	2	0	1	0	05	5	9	2	1	06	12	2	3	3	06	12	2	3	3	07	18	4	3	3	07	18	4	3	3	08	66	17	16	16	08	66	17	16	16	09	82	22	21	20	09	82	22	21	20	10	121	20	34	34	10	121	20	34	34	11	147	28	42	34	11	147	28	42	34	12	155	37	44	35	12	155	37	44	35	13	157	40	39	42	13	157	40	39	42	14	154	43	35	41	14	154	43	35	41	15	146	41	35	36	15	146	41	35	36	16	185	46	40	54	16	185	46	40	54	17	183	36	53	41	17	183	36	53	41	18	179	43	41	49	18	179	43	41	49	19	170	43	43	40	19	170	43	43	40	20	176	47	41	45	20	176	47	41	45	21	180	45	44	53	21	180	45	44	53	22	188	45	44	53	22	188	45	44	53	23	187	45	44	53	23	187	45	44	53	24	186	45	44	53	24	186	45	44	53	25	185	45	44	53	25	185	45	44	53	26	184	43	37	55	26	184	43	37	55	27	181	44	47	41	27	181	44	47	41	28	175	44	47	41	28	175	44	47	41	29	170	43	43	40	29	170	43	43	40	30	166	38	33	41	30	166	38	33	41	31	160	48	38	33	31	160	48	38	33	32	159	44	44	41	32	159	44	44	41	33	158	44	44	41	33	158	44	44	41	34	157	44	44	41	34	157	44	44	41	35	156	44	44	41	35	156	44	44	41	36	155	44	44	41	36	155	44	44	41	37	154	44	44	41	37	154	44	44	41	38	153	44	44	41	38	153	44	44	41	39	152	44	44	41	39	152	44	44	41	40	151	44	44	41	40	151	44	44	41	41	150	44	44	41	41	150	44	44	41	42	149	44	44	41	42	149	44	44	41	43	148	44	44	41	43	148	44	44	41	44	147	44	44	41	44	147	44	44	41	45	146	44	44	41	45	146	44	44	41	46	145	44	44	41	46	145	44	44	41	47	144	44	44	41	47	144	44	44	41	48	143	44	44	41	48	143	44	44	41	49	142	44	44	41	49	142	44	44	41	50	141	44	44	41	50	141	44	44	41	51	140	44	44	41	51	140	44	44	41	52	139	44	44	41	52	139	44	44	41	53	138	44	44	41	53	138	44	44	41	54	137	44	44	41	54	137	44	44	41	55	136	44	44	41	55	136	44	44	41	56	135	44	44	41	56	135	44	44	41	57	134	44	44	41	57	134	44	44	41	58	133	44	44	41	58	133	44	44	41	59	132	44	44	41	59	132	44	44	41	60	131	44	44	41	60	131	44	44	41	61	130	44	44	41	61	130	44	44	41	62	129	44	44	41	62	129	44	44	41	63	128	44	44	41	63	128	44	44	41	64	127	44	44	41	64	127	44	44	41	65	126	44	44	41	65	126	44	44	41	66	125	44	44	41	66	125	44	44	41	67	124	44	44	41	67	124	44	44	41	68	123	44	44	41	68	123	44	44	41	69	122	44	44	41	69	122	44	44	41	70	121	44	44	41	70	121	44	44	41	71	120	44	44	41	71	120	44	44	41	72	119	44	44	41	72	119	44	44	41	73	118	44	44	41	73	118	44	44	41	74	117	44	44	41	74	117	44	44	41	75	116	44	44	41	75	116	44	44	41	76	115	44	44	41	76	115	44	44	41	77	114	44	44	41	77	114	44	44	41	78	113	44	44	41	78	113	44	44	41	79	112	44	44	41	79	112	44	44	41	80	111	44	44	41	80	111	44	44	41	81	110	44	44	41	81	110	44	44	41	82	109	44	44	41	82	109	44	44	41	83	108	44	44	41	83	108	44	44	41	84	107	44	44	41	84	107	44	44	41	85	106	44	44	41	85	106	44	44	41	86	105	44	44	41	86	105	44	44	41	87	104	44	44	41	87	104	44	44	41	88	103	44	44	41	88	103	44	44	41	89	102	44	44	41	89	102	44	44	41	90	101	44	44	41	90	101	44	44	41	91	100	44	44	41	91	100	44	44	41	92	99	44	44	41	92	99	44	44	41	93	98	44	44	41	93	98	44	44	41	94	97	44	44	41	94	97	44	44	41	95	96	44	44	41	95	96	44	44	41	96	95	44	44	41	96	95	44	44	41	97	94	44	44	41	97	94	44	44	41	98	93	44	44	41	98	93	44	44	41	99	92	44	44	41	99	92	44	44	41	100	91	44	44	41	100	91	44	44	41	101	90	44	44	41	101	90	44	44	41	102	89	44	44	41	102	89	44	44	41	103	88	44	44	41	103	88	44	44	41	104	87	44	44	41	104	87	44	44	41	105	86	44	44	41	105	86	44	44	41	106	85	44	44	41	106	85	44	44	41	107	84	44	44	41	107	84	44	44	41	108	83	44	44	41	108	83	44	44	41	109	82	44	44	41	109	82	44	44	41	110	81	44	44	41	110	81	44	44	41	111	80	44	44	41	111	80	44	44	41	112	79	44	44	41	112	79	44	44	41	113	78	44	44	41	113	78	44	44	41	114	77	44	44	41	114	77	44	44	41	115	76	44	44	41	115	76	44	44	41	116	75	44	44	41	116	75	44	44	41	117	74	44	44	41	117	74	44	44	41	118	73	44	44	41	118	73	44	44	41	119	72	44	44	41	119	72	44	44	41	120	71	44	44	41	120	71	44	44	41	121	70	44	44	41	121	70	44	44	41	122	69	44	44	41	122	69	44	44	41	123	68	44	44	41	123	68	44	44	41	124	67	44	44	41	124	67	44	44	41	125	66	44	44	41	125	66	44	44	41	126	65	44	44	41	126	65	44	44	41	127	64	44	44	41	127	64	44	44	41	128	63	44	44	41	128	63	44	44	41	129	62	44	44	41	129	62	44	44	41	130	61	44	44	41	130	61	44	44	41	131	60	44	44	41	131	60	44	44	41	132	59	44	44	41	132	59	44	44	41	133	58	44	44	41	133	58	44	44	41	134	57	44	44	41	134	57	44	44	41	135	56	44	44	41	135	56	44	44	41	136	55	44	44	41	136	55	44	44	41	137	54	44	44	41	137	54	44	44	41	138	53	44	44	41	138	53	44	44	41	139	52	44	44	41	139	52	44	44	41	140	51	44	44	41	140	51	44	44	41	141	50	44	44	41	141	50	44	44	41	142	49	44	44	41	142	49	44	44	41	143	48	44	44	41	143	48	44	44	41	144	47	44	44	41	144	47	44	44	41	145	46	44	44	41	145	46	44	44	41	146	45	44	44	41	146	45	44	44	41	147	44	44	41	44	147	44	44	41	45	148	44	44	41	45	148	44	44	41	46	149	44	44	41	46	149	44	44	41	47	150	44</td

# Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Slow Lane/Lane 2)  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)

Location Code North  
 Direction North  
 Date 07/07/04  
 Real Time 08:21  
 Start Date 07/08/04  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 21  
 Machine Number 3

Monday, July 12, 2004

07/11/2004									
HR	HR	00-15 15-30 30-45 45-00							
Begin	Total	00	12	5	3	2	2	00	21
00	10	3	4	1	2			01	7
01	4	1	2	0	1	0	1	01	6
02	1	1	0	0	0	2	0	02	2
03	3	1	1	0	1	2	0	03	1
04	5	0	0	3	2	5	0	04	0
05	20	2	5	4	9	0	0	05	40
06	89	15	22	23	29	06	06	06	124
07	216	34	51	59	72	07	07	07	355
08	391	83	89	99	120	08	08	08	447
09	304	87	83	67	67	09	09	09	362
10	198	56	46	48	48	10	10	10	221
11	169	32	37	41	59	11	11	11	204
12	269	53	60	76	80	12	12	12	302
13	306	85	85	72	64	13	13	13	349
14	220	64	53	47	56	14	14	14	253
15	182	51	41	39	51	15	15	15	227
16	181	50	46	44	41	16	16	16	293
17	223	55	53	60	55	17	17	17	266
18	210	60	45	64	41	18	18	18	249
19	158	50	39	30	39	19	19	19	197
20	155	48	43	30	34	20	20	20	212
21	98	34	21	17	28	21	21	21	176
22	58	24	13	15	6	22	22	22	92
23	26	12	3	4	7	23	23	23	41
	3496	Total				3929	Total		4479

07/13/04									
HR	HR	00-15 15-30 30-45 45-00							
Begin	Total	00	12	5	3	2	2	00	21
00	10	3	4	1	2			01	7
01	4	1	2	0	1	0	1	01	6
02	1	1	0	0	0	2	0	02	2
03	3	1	1	0	1	2	0	03	1
04	5	0	0	3	2	5	0	04	0
05	20	2	5	4	9	05	05	05	40
06	89	15	22	23	29	06	06	06	108
07	216	34	51	59	72	07	07	07	301
08	391	83	89	99	120	08	08	08	534
09	304	87	83	67	67	09	09	09	362
10	198	56	46	48	48	10	10	10	221
11	169	32	37	41	59	11	11	11	204
12	269	53	60	76	80	12	12	12	302
13	306	85	85	72	64	13	13	13	349
14	220	64	53	47	56	14	14	14	253
15	182	51	41	39	51	15	15	15	227
16	181	50	46	44	41	16	16	16	293
17	223	55	53	60	55	17	17	17	266
18	210	60	45	64	41	18	18	18	249
19	158	50	39	30	39	19	19	19	197
20	155	48	43	30	34	20	20	20	212
21	98	34	21	17	28	21	21	21	176
22	58	24	13	15	6	22	22	22	92
23	26	12	3	4	7	23	23	23	41
	3496	Total				3929	Total		4479

07/14/04									
HR	HR	00-15 15-30 30-45 45-00							
Begin	Total	00	12	5	3	2	2	00	21
00	10	3	4	1	2			01	7
01	4	1	2	0	1	0	1	01	6
02	1	1	0	0	0	2	0	02	2
03	3	1	1	0	1	2	0	03	1
04	5	0	0	3	2	5	0	04	0
05	20	2	5	4	9	05	05	05	40
06	89	15	22	23	29	06	06	06	108
07	216	34	51	59	72	07	07	07	301
08	391	83	89	99	120	08	08	08	534
09	304	87	83	67	67	09	09	09	362
10	198	56	46	48	48	10	10	10	221
11	169	32	37	41	59	11	11	11	204
12	269	53	60	76	80	12	12	12	302
13	306	85	85	72	64	13	13	13	349
14	220	64	53	47	56	14	14	14	253
15	182	51	41	39	51	15	15	15	227
16	181	50	46	44	41	16	16	16	293
17	223	55	53	60	55	17	17	17	266
18	210	60	45	64	41	18	18	18	249
19	158	50	39	30	39	19	19	19	197
20	155	48	43	30	34	20	20	20	212
21	98	34	21	17	28	21	21	21	176
22	58	24	13	15	6	22	22	22	92
23	26	12	3	4	7	23	23	23	41
	3496	Total				3929	Total		4479

07/15/04	
HR	Total
00	21
01	12
02	6
03	7
04	4
05	0
06	0
07	4
08	0
09	3
10	5
11	3
12	2
13	1
14	0
15	4
16	2
17	1
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0

07/15/04	
HR	Total
00	21
01	12
02	6
03	7
04	4
05	0
06	0
07	4
08	0
09	3
10	5
11	3
12	2
13	1
14	0
15	4
16	2
17	1
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0

07/15/04	
HR	Total
00	21
01	12
02	6
03	7
04	4
05	0
06	0
07	4
08	0
09	3
10	5
11	3
12	2
13	1
14	0
15	4
16	2
17	1
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0

07/15/04	
HR	Total
00	21
01	12
02	6
03	7
04	4
05	0
06	0
07	4
08	0
09	3
10	5
11	3
12	2
13	1
14	0
15	4
16	2
17	1
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0

07/15/04	
HR	Total
00	21
01	12
02	6
03	7
04	4
05	0
06	0
07	4
08	0
09	3
10	5
11	3
12	2
13	1
14	0
15	4
16	2
17	1
18	0
19	0

## Mitron Systems Volume Count Report

Site Name Wolfe Road between Gary Avenue and Iris Avenue (Slow Lane/Lane 2)  
Jurisdiction City of Sunnyvale  
Study Type Volume (ch1)  
Location Code  
Direction North  
Date 07/07/04  
Real Time 08:21  
Start Date 07/08/04  
Start Time 00:00  
Sample Time 00:15  
Operator Number 21  
Machine Number 3

Friday, July 16, 2004

HR	Begin	Total	00-15	15-30	30-45	45-00
00	00	32	9	7	12	4
01	17	4	2	9	2	1
02	8	4	1	2	1	5
03	15	2	1	7	5	
04	12	1	5	1	5	
05	54	3	8	20	23	
06	130	25	24	34	47	
07	335	47	74	97	117	
08	612	113	132	172	195	
09	127	127				
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
						1342 Total

AM Peak Hour Start 08:15  
AM Peak Hour Total 626  
AM Peak Hour Factor 80.26 %  
PM Peak Hour Start  
PM Peak Hour Total  
PM Peak Hour Factor

Site Name NB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Tuesday, July 26, 2005

HR	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
Begin																
00							21	4	7	7	3					
01							11	4	4	3	0					
02							3	0	2	1	0					
03							5	0	2	1	2					
04							9	1	1	3	4					
05							64	8	11	22	23					
06							167	34	27	52	54					
07							422	71	88	122	141					
08							652	120	149	180	1203					
09							540	157	156	135	92					
10							307	114	75	60	58					
11							263	53	67	76	67					
12							391	95	180	93	105					
13							410	121	119	97	82					
14							264	66	65	67	66					
15							315	173	175	88	79					
16							303	168	184	80	71					
17							322	174	179	186	183					
18							326	85	95	75	71					
19							326	181	196	161	185					
20							278	177	173	166	162					
21							201	156	167	146	138					
22							113	59	56	52	56					
23							63	22	25	27	19					
		Total					5776	Total					Total			

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 08:30  
 AM Peak Hour Total 696  
 AM Peak Hour Factor 85.71 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 451  
 PM Peak Hour Factor 91.67 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name NB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Wednesday, July 27, 2005

HR	HR	Channel 1				Channel 2				Channel 1 + Channel 2					
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45
00	Begin						23	9	6	5	3				
01							14	2	4	4	4				
02							4	2	1	0	1				
03							7	1	3	2	1				
04							10	0	2	3	5				
05							61	13	8	16	24				
06							172	34	35	48	55				
07							428	66	89	125	148				
08							675	135	162	174	201				
09							524	135	142	105	94				
10							298	98	79	63	58				
11							269	62	65	70	72				
12							402	73	84	74	72				
13							420	72	112	102	80				
14							307	57	73	78	63				
15							292	69	75	71	71				
16							303	77	73	80	71				
17							343	80	82	86	95				
18							325	61	70	86	82				
19							318	85	95	72	80				
20							260	75	74	62	49				
21							221	82	51	48	40				
22							112	27	56	55	71				
23							55	14	20	15	6				
		Total					5843	Total				Total			

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 08:15  
 AM Peak Hour Total 723  
 AM Peak Hour Factor 89.93 %  
 PM Peak Hour Start 12:30  
 PM Peak Hour Total 483  
 PM Peak Hour Factor 94.34 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name NB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Thursday, July 28, 2005

HR	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
00							25	8	10	5	2					
01							19	4	8	2	5					
02							9	1	2	3	3					
03							9	1	2	4	2					
04							10	0	3	2	5					
05							56	6	13	10	27					
06							168	37	36	37	58					
07							424	62	104	107	151					
08							659	131	160	183	187					
09							555	158	151	127	119					
10							282	81	84	68	49					
11							295	78	78	57	82					
12							381	86	95	101	92					
13							440	116	114	97	79					
14							289	75	65	71	70					
15							295	72	69	76	63					
16							271	72	58	70	71					
17							224	62	38	52	72					
18							368	104	74	101	89					
19							295	70	70	73	82					
20							278	86	65	58	69					
21							218	65	57	48	78					
22							116	31	35	27	28					
23							63	30	12	11	10					
		Total					5749	Total					Total			

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 08:15  
 AM Peak Hour Total 686  
 AM Peak Hour Factor 91.71 %  
 PM Peak Hour Start 12:30  
 PM Peak Hour Total 467  
 PM Peak Hour Factor 85.85 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Tuesday, July 26, 2005

HR Begin	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
00		61	15	21	18	7										
01		44	16	16	8	4										
02		24	9	8	5	2										
03		17	4	9	0	4										
04		29	6	6	7	10										
05		67	5	13	22	27										
06		147	18	27	41	61										
07		399	78	83	98	140										
08		446	84	103	117	142										
09		568	131	155	165	117										
10		450	105	114	111	120										
11		723	159	142	203	126										
12		832	243	121	201	172										
13		582	165	157	159	110										
14		616	170	125	145	129										
15		697	163	169	183	182										
16		886	203	220	217	120										
17		1418	328	363	373	159										
18		1547	259	264	262	216										
19		997	274	195	285	226										
20		688	187	174	153	171										
21		418	121	118	199	177										
22		255	71	74	55	58										
23		148	58	36	24	36										
		12059	Total				Total									Total

#### Channel 1

AM Peak Hour Start 11:00  
 AM Peak Hour Total 723  
 AM Peak Hour Factor 76.27 %  
 PM Peak Hour Start 17:45  
 PM Peak Hour Total 1552  
 PM Peak Hour Factor 91.94 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Wednesday, July 27, 2005

HR	HR	Channel 1					Channel 2					Channel 1 + Channel 2					
		Begin	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
00	70	24	21	15	10												
01	39	9	8	13	9												
02	29	9	9	6	5												
03	13	6	4	1	2												
04	28	5	7	5	11												
05	65	8	8	22	27												
06	171	19	34	38	80												
07	398	81	81	114	122												
08	517	130	121	120	146												
09	547	151	117	133	146												
10	470	109	119	116	126												
11	726	101	151	204	231												
12	835	254	249	186	165												
13	637	172	160	145	153												
14	642	172	142	162	153												
15	731	180	171	193	187												
16	1001	224	224	193	193												
17	202	111	159	143	153												
18	6	11	12	11	10												
19	8	11	12	12	10												
20	7	10	10	10	10												
21	4	11	13	10	10												
22	12	12	76	10	9												
23	1	1	1	1	1												
	7159	Total					Total							Total			

#### Channel 1

AM Peak Hour Start 11:00  
 AM Peak Hour Total 726  
 AM Peak Hour Factor 78.57 %  
 PM Peak Hour Start 16:00  
 PM Peak Hour Total 1001  
 PM Peak Hour Factor 78.20 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Thursday, July 28, 2005

HR	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
Begin																
00		0	0	0	0	0										
01		0	0	0	0	0										
02		1	1	0	0	0										
03		0	0	0	0	0										
04		2	0	2	0	0										
05		0	0	0	0	0										
06		1	0	0	1	0										
07		9	1	0	0	8										
08		475	86	115	129	145										
09		522	141	126	124	131										
10		522	141	120	130	131										
11		768	149	179	205	236										
12		854	136	245	216	162										
13		623	185	120	144	153										
14		653	150	153	150	185										
15		717	151	162	154	210										
16		925	189	229	246	262										
17		1302	324	353	301	344										
18		1527	304	354	307	336										
19		984	1307	254	242	182										
20		706	194	174	178	169										
21		412	141	96	96	79										
22		285	198	174	161	162										
23		175	150	149	121	31										
		11463	Total				Total						Total			

#### Channel 1

AM Peak Hour Start 11:00  
 AM Peak Hour Total 768  
 AM Peak Hour Factor 81.36 %  
 PM Peak Hour Start 17:45  
 PM Peak Hour Total 1541  
 PM Peak Hour Factor 84.48 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Tuesday, July 26, 2005

HR Begin	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
00							0	0	0	0	0					
01							2	0	0	2	0					
02							2	0	1	1	0					
03							1	0	1	0	0					
04							1	0	0	0	1					
05							2	0	0	0	2					
06							0	0	0	0	0					
07							16	0	0	0	16					
08							312	62	71	80	99					
09							373	90	100	104	79					
10							283	65	64	72	82					
11							448	95	85	125	145					
12							506	150	124	120	112					
13							367	99	160	93	175					
14							381	111	77	100	163					
15							402	107	96	107	103					
16							519	121	123	130	140					
17							810	194	205	210	204					
18							875	222	190	205	205					
19							561	151	145	132	133					
20							422	115	105	107	105					
21							264	72	68	76	51					
22							161	18	38	20	10					
23							84	33	22	15	13					
		Total					6792	Total					Total			

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 11:00  
 AM Peak Hour Total 448  
 AM Peak Hour Factor 77.24 %  
 PM Peak Hour Start 18:00  
 PM Peak Hour Total 875  
 PM Peak Hour Factor 93.48 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Wednesday, July 27, 2005

HR Begin	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
00							50	19	15	8	8					
01							23	5	5	7	6					
02							18	4	8	4	2					
03							9	6	1	1	1					
04							21	5	4	4	8					
05							46	6	4	15	21					
06							118	14	25	25	54					
07							258	56	55	64	83					
08							328	83	81	72	92					
09							339	97	80	80	82					
10							313	75	79	73	86					
11							438	187	196	122	152					
12							500	172	145	114	199					
13							388	105	97	85	101					
14							399	112	63	93	93					
15							422	103	104	140	105					
16							532	105	154	127	146					
17							819	183	195	205	232					
18							850	141	156	154	192					
19							568	175	150	130	113					
20							396	152	102	95	86					
21							248	92	60	52	42					
22							152	141	153	130	128					
23							104	189	130	125	120					
		Total					7339	Total					Total			

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 11:00  
 AM Peak Hour Total 438  
 AM Peak Hour Factor 82.33 %  
 PM Peak Hour Start 17:45  
 PM Peak Hour Total 894  
 PM Peak Hour Factor 92.74 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name SB Wolfe Road Lane 2  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch2)  
 Location Code 559  
 Direction South  
 Date 7/25/2005  
 Real Time 13:01  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 7  
 Machine Number 1

Thursday, July 28, 2005

HR	HR	Channel 1				Channel 2				Channel 1 + Channel 2					
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45
Begin															
00							52	20	17	9	6				
01							31	11	6	4	10				
02							16	3	9	2	2				
03							15	2	5	3	5				
04							16	6	2	1	7				
05							46	7	5	18	16				
06							112	23	22	30	37				
07							281	57	64	69	91				
08							301	67	68	77	89				
09							337	87	88	80	82				
10							344	96	82	76	90				
11							482	95	118	131	153				
12							516	145	143	126	102				
13							395	112	87	98	98				
14							390	81	92	101	111				
15							433	92	102	115	121				
16							544	109	121	141	150				
17							685	182	168	152	153				
18							857	249	260	262	262				
19							567	179	146	135	113				
20							425	115	110	102	95				
21							251	85	59	56	46				
22							185	154	65	39	37				
23							113	55	60	27	12				
		Total					7394	Total					Total		

#### Channel 1

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 2

AM Peak Hour Start 11:00  
 AM Peak Hour Total 482  
 AM Peak Hour Factor 78.76 %  
 PM Peak Hour Start 18:00  
 PM Peak Hour Total 857  
 PM Peak Hour Factor 86.04 %

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name NB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Tuesday, July 26, 2005

HR	HR	Channel 1				Channel 2				Channel 1 + Channel 2					
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45
Begin															
00		62	11	21	18	12									
01		42	11	14	11	6									
02		24	5	9	7	3									
03		24	3	6	7	8									
04		39	7	5	12	15									
05		187	28	33	55	71									
06		497	108	83	145	161									
07		1248	204	254	371	419									
08		1463	295	314	337	357									
09		1247	363	345	308	223									
10		658	252	155	125	126									
11		618	136	147	173	162									
12		979	254	199	236	191									
13		1063	254	245	247	226									
14		697	178	172	173	174									
15		796	199	182	235	261									
16		794	181	245	202	187									
17		864	153	213	224	227									
18		853	210	245	192	193									
19		762	206	220	174	136									
20		626	157	172	145	139									
21		435	125	123	103	76									
22		259	91	75	44	48									
23		151	54	30	35	53									
		14388	Total				Total					Total			

#### Channel 1

AM Peak Hour Start 08:30  
 AM Peak Hour Total 1570  
 AM Peak Hour Factor 84.05 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 1150  
 PM Peak Hour Factor 90.98 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name NB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Wednesday, July 27, 2005

HR Begin	HR	Channel 1				Channel 2				Channel 1 + Channel 2					
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45
00	59	19	17	16	7										
01	33	8	7	7	11										
02	26	4	13	2	7										
03	22	6	5	8	3										
04	37	5	8	10	14										
05	134	26	14	40	54										
06	344	65	70	96	113										
07	845	130	189	244	282										
08	1350	270	322	368	390										
09	1174	275	311	274	216										
10	656	210	163	143	140										
11	609	139	142	164	164										
12	959	178	194	204	216										
13	1050	201	237	259	197										
14	790	219	204	204	167										
15	724	173	187	181	176										
16	774	199	193	202	186										
17	895	226	201	226	215										
18	839	212	203	220	204										
19	729	194	203	168	162										
20	579	164	150	180	147										
21	459	149	115	101	134										
22	252	74	77	71	53										
23	140	24	22	36	29										
	13479	Total					Total						Total		

#### Channel 1

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1453  
 AM Peak Hour Factor 93.14 %  
 PM Peak Hour Start 12:30  
 PM Peak Hour Total 1181  
 PM Peak Hour Factor 93.43 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

Site Name NB Wolfe Road Lane 1  
 Jurisdiction City of Sunnyvale  
 Study Type Volume (ch1)  
 Location Code 559  
 Direction North  
 Date 7/25/2005  
 Real Time 12:26  
 Start Date 7/26/2005  
 Start Time 00:00  
 Sample Time 00:15  
 Operator Number 17  
 Machine Number 4

Thursday, July 28, 2005

HR	HR	Channel 1					Channel 2					Channel 1 + Channel 2				
		Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00	Total	00-15	15-30	30-45	45-00
Begin																
00		63	19	23	11	10										
01		41	11	13	6	11										
02		21	4	6	5	6										
03		19	2	3	8	6										
04		33	4	7	8	14										
05		118	16	20	26	56										
06		344	69	69	81	125										
07		843	132	206	217	288										
08		1332	247	323	375	523										
09		1164	244	300	269	248										
10		592	167	158	148	119										
11		656	168	158	145	185										
12		908	198	214	253	253										
13		1092	241	219	224	163										
14		743	193	173	177	102										
15		765	138	183	188	203										
16		712	188	150	179	201										
17		500	165	72	103	160										
18		936	160	213	246	217										
19		705	173	167	174	161										
20		635	185	158	148	149										
21		496	150	136	164	105										
22		302	187	187	72	169										
23		175	168	46	85	32										
		13195	Total					Total						Total		

#### Channel 1

AM Peak Hour Start 08:15  
 AM Peak Hour Total 1432  
 AM Peak Hour Factor 92.27 %  
 PM Peak Hour Start 12:45  
 PM Peak Hour Total 1154  
 PM Peak Hour Factor 88.50 %

#### Channel 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor  
 PM Peak Hour Start  
 PM Peak Hour Total  
 PM Peak Hour Factor

#### Channel 1 + 2

AM Peak Hour Start  
 AM Peak Hour Total  
 AM Peak Hour Factor

**City of Sunnyvale-DPW**  
**Division of Transportation and Traffic**

**Traffic Collision History Report**  
**Midblock Collisions**

7/27/2005  
 Page 4

Arterial: **WOLFE ROAD**  
 Limit 1: **MARIA LANE**  
 Limit 2: **OLD SAN FRANCISCO ROAD**

Date Range Reported: 7/1/2001 - 7/1/2005

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kid
CR03-9972	8/29/03 16:49	515' South of Int.	WOLFE ROAD/IRIS AVENUE	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Speed	0	0
CR03-10309	9/7/03 12:45	0' In Int.	WOLFE ROAD/GARY AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Driving Under Influence	1	0
CR03-11626	10/5/03 09:00	60' North of	WOLFE ROAD/IRIS AVENUE	Sideswipe	Parked Motor Vehicle	North	Other Unsafe Turning	North	Parked	Improper Turning	0	0
CR03-11797	10/13/03 12:21	15' South of	WOLFE ROAD/REED AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	0	0
CR03-11919	10/16/03 07:46	60' South of	WOLFE ROAD/OLD SAN FRANCISCO ROAD	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Driving Under Influence	0	0
CR03-12355	10/25/03 20:14	42' South of	WOLFE ROAD/IRIS AVENUE	Hit Object	Fixed Object	East	Other Unsafe Turning	East	Other Unsafe Turning	Improper Turning	0	0
CR03-13903	12/1/03 18:36	220' North of	WOLFE ROAD/IRIS AVENUE	Rear-End	Other Motor Vehicle	South	Slowing/Stopping	South	Slowing/Stopping	Driving Under Influence	1	0
CR03-14738	12/21/03 18:33	25' South of	WOLFE ROAD/IRIS AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Driving Under Influence	1	0
CR04-392	1/12/04 12:08	0' In Int.	WOLFE ROAD/MARIA LANE	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
CR04-742	1/20/04 20:23	450' North of	WOLFE ROAD/IRIS AVENUE	Hit Object	Non-Collision	North	Other Unsafe Turning	North	Parked	Improper Turning	0	0
CR04-745	1/20/04 20:24	30' South of	WOLFE ROAD/IRIS AVENUE	Sideswipe	Other Motor Vehicle	South	Other	North	Stopped In Road	Wrong Side of Road	0	0

**City of Sunnyvale-DPW**  
**Division of Transportation and Traffic**

**Traffic Collision History Report**  
**Midblock Collisions**

7/27/2005  
 Page 5

Arterial: WOLFE ROAD  
 Limit 1: MARIA LANE  
 Limit 2: OLD SAN FRANCISCO ROAD

Date Range Reported: 7/1/2001 - 7/1/2005

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
CR04-1157	1/30/04 13:45	0' In Int.	WOLFE ROAD/REED AVENUE	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Improper Turning	0	0
CR04-3313	3/21/04 15:20	465' North of LANE	WOLFE ROAD/MARIA LANE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Unsafe Speed	1	0
CR04-5608	5/17/04 12:56	0' In Int.	WOLFE ROAD/PRIMROSE AVENUE	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped In Road	Unsafe Speed	2	0
CR04-7506	7/3/04 19:12	667' South of FRANCISCO ROAD	WOLFE ROAD/OLD SAN FRANCISCO ROAD	Hit Object	Fixed Object	South	Stopped In Road			Driving Under Influence	0	0
CR04-7644	7/7/04 21:49	120' North of AVENUE	WOLFE ROAD/PRIMROSE AVENUE	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	North	Proceeding Straight	Driving Under Influence	0	0
CR04-8693	7/31/04 20:02	125' South of AVENUE	WOLFE ROAD/GARY AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Unsafe Speed	1	0
CR04-9157	8/11/04 14:51	0' In Int.	WOLFE ROAD/PRIMROSE AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Slowing/Stopping Following Too Closely	Too Closely	1	0
CR04-9257	8/12/04 16:45	60' South of AVENUE	WOLFE ROAD/IRIS AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Unsafe Speed	0	0
CR04-10656	9/16/04 16:00	120' South of AVENUE	WOLFE ROAD/IRIS AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Slowing/Stopping Following Too Closely	Too Closely	0	0
CR04-11513	10/7/04 12:26	40' South of AVENUE	WOLFE ROAD/GARY AVENUE	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped In Road	Unsafe Speed	1	0
CR04-11625	10/10/04 11:06	0' LANE In Int.	WOLFE ROAD/MARIA LANE	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Improper Turning	2	0

**City of Sunnyvale-DPW**  
**Division of Transportation and Traffic**

**Traffic Collision History Report**  
**Midblock Collisions**

7/27/2005  
 Page 6

**Arterial:** WOLFE ROAD  
**Limit 1:** MARIA LANE  
**Limit 2:** OLD SAN FRANCISCO ROAD

**Date Range Reported:** 7/1/2001 - 7/1/2005

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
CR04-12436	10/30/04 13:05	0' In Int.	WOLFE ROAD/IRIS AVENUE	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Making Left Turn	Traffic Signals and Signs	0	0
CR04-14668	12/28/04 14:53	0' In Int.	WOLFE ROAD/OLD SAN FRANCISCO ROAD	Broadside	Other Motor Vehicle	North	Making Left Turn	West	Proceeding Straight	Traffic Signals and Signs	0	0
CR04-14764	12/31/04 12:21	800' South of	WOLFE ROAD/OLD SAN FRANCISCO ROAD	Sideswipe	Parked Motor Vehicle	South	Proceeding Straight	South	Parked	Unsafe Speed	0	0
CR05-2446	3/4/05 06:35	0' In Int.	WOLFE ROAD/REED AVENUE	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
CR05-3034	3/19/05 00:42	0' In Int.	WOLFE ROAD/OLD SAN FRANCISCO ROAD	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Driving Under Influence	2	0

## Wolfe Road Bike Position Counts

Time	Jul-04			Jul-05			Shoulder NB	Shoulder SB	Right Third NB	Right Third SB	Center NB	Center SB	Sidewalk NB	Sidewalk SB	Total
	NB	Shoulder NB	Right NB	Third SB	NB	SB									
12:15															
12:30	1	1							2						2
12:45									0						0
13:00		2							2						0
13:15									0						0
13:30									0						1
13:45									1						1
14:00									1						1
16:15									2						0
16:30	1								3						0
16:45		1							0						0
17:00	1								2						2
17:15		1							1						0
17:30									2						2
17:45									0						0
18:00	2								0						4
18:15		1							1						1
18:30									0						1
18:45									0						1
19:00	2								2						2
19:15	1								1						1
19:30									0						0
19:45									0						1
20:00	2	1							1	4					5
Total # of Bicycles	1	11	5	1	0	0	1	9	28	0	4	6	11	1	28

### **Wolfe Road Vehicle Lane Changes**

Time	Jul-04			Jul-05		
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:15	N/A	N/A	N/A	N/A	5	11
12:30	N/A	N/A	N/A	N/A	10	22
12:45	N/A	N/A	N/A	N/A	8	12
13:00	12	5	5	8	11	9
13:15	11	11	10	10	9	9
13:30	10	15	15	10	10	10
13:45	16	25	25	6	9	9
14:00	3	16	16	11	11	11
14:15	10	16	16	N/A	N/A	N/A
14:30	10	15	15	N/A	N/A	N/A
14:45	8	16	16	N/A	N/A	N/A
16:15	10	19	4	4	9	9
16:30	7	12	4	4	20	20
16:45	10	10	10	10	6	6
17:00	7	13	8	8	13	13
17:15	17	15	6	6	25	25
17:30	8	17	13	13	23	23
17:45	13	26	10	10	20	20
18:00	9	20	6	6	24	24
18:15	3	20	7	7	23	23
18:30	7	16	10	10	20	20
18:45	7	10	8	8	23	23
19:00	16	17	11	11	16	16
19:15	10	20	7	7	20	20
19:30	12	23	5	5	16	16
19:45	8	9	8	8	20	20
20:00	9	19	7	7	8	8
Total # of Vehicle Lane Changes	233	385	192	192	381	381

N/A: information for that time segment was not recorded

# **Wolfe Road Survey**

1. Did you notice the overhead signs for Bikes? Y / N
2. Did you notice the pavement markings for Bikes? Y / N
3. Did the signs/pavement markings make you more aware of bikes on Wolfe Rd? Y / N
4. Do you think (check one):
  - The overhead signs/pavement markings have improved safety on Wolfe Road.
  - The overhead signs/pavement markings have had no effect on safety on Wolfe Road.
  - The overhead signs/pavement markings have decreased safety on Wolfe Road.
5. Should the City leave the overhead signs in place? Y / N
6. Should the City leave the pavement markings in place? Y / N
7. What do you think is most effective in alerting drivers to Bikes (check one)?
  - Overhead signs
  - Pavement markings
  - Combination of both overhead signs and pavement markings

*This Study is being conducted by the City of Sunnyvale. Thank you for your participation.*